

Lockheed Martin
Scientific Engineering Response and Analytical Services
2890 Woodbridge Avenue Building 209
Edison, NJ 08837-3679
Telephone 732-321-4200 Facsimile 732-494-4021



DATE: 05/26/2010
TO: D. Mickunas, ERTC/EPA
FROM: Vinod Kansal, Analytical Group Leader *done for VK*
SUBJECT: Preliminary Results of Project Mississippi Canyon Oil Spill WA# 1091.

Attached please find the preliminary results of the above referenced project for the following samples.

Chain of Custody No.

Analyses

ERTDW-05/23/10-0009

11 air samples for 2-butoxyethanol.

cc: Archives
Subcontracting
G. Depasquale
V. Kansal
Joseph Soroka
D. Killeen
WAM: D. Mickunas
Task Leader: D. Miller

May 26, 2010

LABORATORY REPORT

Client:

Lockheed Martin / SERAS
2890 Woodbridge Avenue, Bldg. 209, Bay F
Edison, NJ 08837
Attn: Misty Barkley

Work Order: PTE1388
Project Name: NIOSH 1403
Project Number: ERTDW-05/23/10-0009
Date Received: 05/25/10
Final Report: 05/26/10 12:37

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica Laboratories, Inc., Phoenix Laboratory certifies that the analytical results contained herein apply only to the specific sample(s) analyzed.

This entire report was reviewed and approved for release.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(602)437-3340

Analyses included in this report were performed by the laboratory shown at the top of this report unless otherwise indicated.

CASE NARRATIVE:

SAMPLE RECEIPT: Samples were received intact, at 10.4°C and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

Approved By:



Tina Paulauskas
Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189 Phoenix, AZ 85040 * (602) 437-3340 * Fax (602) 454-9303

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<u>SAMPLE IDENTIFICATION</u>	<u>LAB NUMBER</u>	<u>COLLECTION DATE</u>	<u>CONTAINER TYPE</u>
ERTDW-00030	PTE1388-01	05/20/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00037	PTE1388-02	05/21/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00038	PTE1388-03	05/21/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00044	PTE1388-04	05/21/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00045	PTE1388-05	05/21/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00048	PTE1388-06	05/22/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00049	PTE1388-07	05/22/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00056	PTE1388-08	05/22/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00061	PTE1388-09	05/22/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00065	PTE1388-10	05/22/10	50/100 mg - Coconut Shell Charcoal Tube
ERTDW-00066	PTE1388-11	05/22/10	50/100 mg - Coconut Shell Charcoal Tube

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ANALYTICAL REPORT

Analyte	Result	Qual	Date Analyzed	Analyst	Rpt Limit (ug, Total)	Method
Alcohols IV, by NIOSH 1403 (Modified)						
Sample ID: PTE1388-01 (ERTDW-00030)	Tube		Sample Air Volume:10L		Sampled: 05/20/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-02 (ERTDW-00037)	Tube		Sample Air Volume:10L		Sampled: 05/21/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-03 (ERTDW-00038)	Tube		Sample Air Volume:10L		Sampled: 05/21/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-04 (ERTDW-00044)	Tube		Sample Air Volume:L		Sampled: 05/21/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	--	--	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-05 (ERTDW-00045)	Tube		Sample Air Volume:L		Sampled: 05/21/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	--	--	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-06 (ERTDW-00048)	Tube		Sample Air Volume:10L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-07 (ERTDW-00049)	Tube		Sample Air Volume:10L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-08 (ERTDW-00056)	Tube		Sample Air Volume:10L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-09 (ERTDW-00061)	Tube		Sample Air Volume:10L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	<0.43	<0.08897	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-10 (ERTDW-00065)	Tube		Sample Air Volume:L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	--	--	5/25/2010	zn	4.30 CALC
Sample ID: PTE1388-11 (ERTDW-00066)	Tube		Sample Air Volume:L		Sampled: 05/22/10	
ug, Total	mg/m3	ppm			Prepared: 05/25/10 13:36	
2-Butoxyethanol	<4.30	--	--	5/25/2010	zn	4.30 CALC

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PROJECT QUALITY CONTROL DATA

Blank

Analyte	Blank Value	Qual	Units	Q.C. Batch	Target Range	Lab Number	Analyzed Date
Alcohols IV, by NIOSH 1403 (Modified)							
10E0920-BLK1							
2-Butoxyethanol	<4.30		ug, Total	10E0920		10E0920-BLK1	05-25-2010
2-Butoxyethanol - Back	<4.30		ug, Total	10E0920		10E0920-BLK1	05-25-2010

LCS

Analyte	Known Val.	Analyzed Val	Qual	Units	% Rec.	Target Range	Batch	Analyzed Date
Alcohols IV, by NIOSH 1403 (Modified)								
10E0920-BS1								
2-Butoxyethanol	9.07	11.89	L	ug, Total	131%	75-125	10E0920	05-25-2010

LCS Dup

Analyte	Orig. Val.	Duplicate	Qual	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date
Alcohols IV, by NIOSH 1403 (Modified)												
10E0920-BSD1												
2-Butoxyethanol		11.98	L	ug, Total	9.07	132%	75-125	0.754	30	10E0920		05-25-2010

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CERTIFICATION SUMMARY

Analyses included in this report were performed by TestAmerica Phoenix, 4625 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ 85040.

TestAmerica Phoenix (Lab ID 154268) is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation for the following methods: NIOSH 0500, NIOSH 0600, NIOSH 1003, NIOSH 1005, NIOSH 1007, NIOSH 1010, NIOSH 1015, NIOSH 1022, NIOSH 1300, NIOSH 1400, NIOSH 1401, NIOSH 1403, NIOSH 1405, NIOSH 1450, NIOSH 1457, NIOSH 1500, NIOSH 1501, NIOSH 1550, NIOSH 1602, NIOSH 1604, NIOSH 1606, NIOSH 1609, NIOSH 1610, NIOSH 1611, NIOSH 1613, NIOSH 1615, NIOSH 2000, NIOSH 2016, NIOSH 2532, NIOSH 2546, NIOSH 2551, NIOSH 5000, NIOSH 5503, NIOSH 5506, NIOSH 5600, NIOSH 6006, NIOSH 6009, NIOSH 6010, NIOSH 7300, NIOSH 7303, NIOSH 7600, NIOSH 7903, NIOSH 9100, NIOSH 9102, EPA IP-6A, EPA IP-6C, OSHA PV2120, OSHA 7, OSHA 42, OSHA 47, OSHA 48, OSHA 64, OSHA 69, OSHA 111, OSHA ID-140, OSHA ID-121, OSHA ID-125G, OSHA IS-215, OSHA 1001, OSHA 1002, OSHA 1003, OSHA 1004, OSHA 1005 and OSHA Chemical and Sampling Information for Silane. Volatile organic compounds on 3M Organic Vapor Monitors, Assay Technology Passive Monitors and SKC Passive Monitors. Formaldehyde and other aldehydes and ketones on Assay Technology Passive Monitor. Aldehydes and ketones by EPA TO-11A.

The TestAmerica Phoenix is also licensed through the State of Arizona (AZ0728) for EPA method TO-15.

TestAmerica Phoenix also holds NELAC accreditation through the State of Oregon (AZ100001) for the analytical techniques noted on the scope of accreditation and the State of New York (11898) for NIOSH 6009.

Samples were analyzed using methods outlined in references such as:

- OSHA - Occupational Safety and Health Administration, U. S. Department of Labor, OSHA Analytical Methods Manual.
- NIOSH - National Institute for Occupational Safety and Health, U. S. Department of Health and Human Services, NIOSH Manual of Analytical Methods, Fourth Edition, 1994, and Updates. NIOSH Method 7300 analyses are performed using a modified digestion procedure to eliminate the use of perchloric acid.
- EPA - U. S. Environmental Protection Agency, Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, 1999.
- EPA - U. S. Environmental Protection Agency, Analytical Methods, Emission Measurement Center (EMC).

Analytical Comments:

Unless otherwise noted, all method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Unless otherwise noted, sample results have been corrected for method blank values.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

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DATA QUALIFIERS AND DEFINITIONS

- L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

ADDITIONAL COMMENTS

Site #: ERTDW

No: ERTDW-05/23/10-0009

PTE/388

Lab Phone: (866)772-5227

Lab #	Sample #	Location	Sub Location	Analyses	Matrix	Sample Media	Collected	Sample Time	Volume	Vol Units	Total Time	Avg. Flow	Flow Units
	ERTDW-00030	Intl Peace	Starboard Midship Stand	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/20/2010	19:30	10	Liter s	50	0.2	L/min
	ERTDW-00037	Intl Peace-003	Starboard Midship	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/21/2010	18:04	10	Liter s	50	0.2	L/min
	ERTDW-00038	Intl Peace-003	Starboard Midship CoLoc	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/21/2010	18:04	10	Liter s	50	0.2	L/min
	ERTDW-00044	Field Blank		NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/21/2010	18:20	0	Liter s	0	0	L/min
	ERTDW-00045	Field Blank		NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/21/2010	18:20	0	Liter s	0	0	L/min
	ERTDW-00048	Warrior-002	Port Midship	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	11:56	10	Liter s	50	0.2	L/min
	ERTDW-00049	Warrior-002	Port Midship Co-Located	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	11:56	10	Liter s	50	0.2	L/min
	ERTDW-00056	Warrior-004	Port Midship	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	15:04	10	Liter s	50	0.2	L/min
	ERTDW-00061	Fish Camp	Dock	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	17:40	10	Liter s	50	0.2	L/min
	ERTDW-00065	Field Blanks	Field Blanks	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	18:00	0	Liter s	360	0	L/min
	ERTDW-00066	Field Blanks	Field Blanks	NIOSH 1403 (2-butoxyethanol)	Air	Carbon/150 mg	5/22/2010	18:00	0	Liter s	360	0	L/min

CHAIN OF CUSTODY #

10-4-c

Items/Reason	Relinquished by	Date	Received by	Date	Time		Items/Reason	Relinquished By	Date	Received by	Date	Time
ALL Armbags	Mattew	5/6/10										
							DJ-25-10					
							Evan Felt 5/28/10					